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| **Course – 27 Title: Electrical Technology Sessional** | |
| **Course Code: EEE 212 Credit: 1.50 Contact Hour: 2** | **Total marks: 100** |

**11.1 Rationale:**

To be a computer engineer, its practitioner needs to use poly phase circuits, different types of motors, generators, transformers, transducers in practical field.

**11.2 Objectives:**

1. To analyze interconnection of three phase circuits, design and implement microcontroller based circuit.
2. To find the phase sequence of alternators, analyze the characteristics of DC motor and the efficiency of DC generator.
3. To perform no-load and load test, open circuit and short circuit test on transformer.
4. To measure pressure and Temperature of transducers.

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| **11.3**  **Learning Outcomes** | **11.4**  **Course Content** | **11.5**  **Teaching Strategy/ Learning Experience** | **11.6 Assessment Strategy** |
| 1. Analyze the interconnection of three phase circuit 2. Measure the phase sequence of three phase circuits. | Three phase circuit analysis(Delta-Wye circuit, volt meter test) | Demonstration, Exercise | Assignment/Exercise, Observation |
| 1. Measure the losses in transformer 2. Determine parameter of transformer | Transformer (No load and load test, Open circuit and short circuit test) | Demonstration, Exercise, | Assignment/Exercise, Observation |
| 1. Find the phase sequence of alternators | Alternator(Three Dark Lamp method) | Demonstration, Exercise | Assignment/Exercise, Observation |
| 1. Analyze the characteristics of DC motor | DC Motor (Speed control, Characteristics curve analysis) | Demonstration, Assignment, Exercise | Assignment/Exercise, Observation |
| 1. Find the efficiency of DC generator | DC Generator(Loss analysis) | Demonstration, Assignment, Exercise | Assignment/Exercise, Observation |
| 1. Measure pressure and Temperature of transducers | Transducers(Pressure and Temperature measurement) | Demonstration, Assignment, Exercise | Assignment/Exercise, Observation |
| 1. Design and implement microcontroller based circuit | Project (Circuit design with Microcontroller) | Demonstration, Project, Assignment | Assignment, Viva Voce |

**Recommended Books:**

1. B.L. Theraja : A text book of Electrical Technology, Volume: I
2. Bhattacharya :Electrical Machines
3. Rosenblatt : Direct and Alternating Current Machinery
4. A.K. Sawhney : Electrical and Electronic Measurements and Instrumentation